

Site-specific  
Recreator Equation Inputs for Surface Water

Variable	Value
TR (target cancer risk) unitless	0.000001
ED <sub>recw</sub> (exposure duration - recreator) year	26
ED <sub>recwa</sub> (exposure duration - adult) year	20
ED <sub>recwc</sub> (exposure duration - child) year	6
ED <sub>0-2</sub> (mutagenic exposure duration) year	2
ED <sub>2-6</sub> (mutagenic exposure duration) year	4
ED <sub>6-16</sub> (mutagenic exposure duration) year	10
ED <sub>16-30</sub> (mutagenic exposure duration) year	10
THQ (target hazard quotient) unitless	1
LT (lifetime - recreator) year	70
EF (exposure frequency) day/year	46.154
EF <sub>recwa</sub> (adult exposure frequency) day/year	60
EF <sub>recwc</sub> (child exposure frequency) day/year	0
EF <sub>0-2</sub> (mutagenic exposure frequency) day/year	0
EF <sub>2-6</sub> (mutagenic exposure frequency) day/year	0
EF <sub>6-16</sub> (mutagenic exposure frequency) day/year	60
EF <sub>16-30</sub> (mutagenic exposure frequency) day/year	60
ET <sub>recw-adj</sub> (age-adjusted exposure time) hour/event	6.154
ET <sub>recw-madj</sub> (mutagenic age-adjusted exposure time) hour/event	6.154
ET <sub>recwa</sub> (adult exposure time) hour/event	8
ET <sub>recwc</sub> (child exposure time) hour/event	0
ET <sub>recw0-2</sub> (mutagenic exposure time) hour/event	0
ET <sub>recw2-6</sub> (mutagenic exposure time) hour/event	0
ET <sub>recw6-16</sub> (mutagenic exposure time) hour/event	8
ET <sub>recw16-30</sub> (mutagenic exposure time) hour/event	8

EV <sub>recwa</sub> (adult) events/day	1
EV <sub>recwc</sub> (child) events/day	0
EV <sub>0-2</sub> (mutagenic) events/day	0
EV <sub>2-6</sub> (mutagenic) events/day	0
EV <sub>6-16</sub> (mutagenic) events/day	1
EV <sub>16-30</sub> (mutagenic) events/day	1
BW <sub>recwc</sub> (body weight - child) kg	15
BW <sub>recwa</sub> (body weight - adult) kg	80
BW <sub>0-2</sub> (mutagenic body weight) kg	15
BW <sub>2-6</sub> (mutagenic body weight) kg	15
BW <sub>6-16</sub> (mutagenic body weight) kg	80
BW <sub>16-30</sub> (mutagenic body weight) kg	80
SA <sub>recwc</sub> (skin surface area - child) cm <sup>2</sup>	6378
SA <sub>recwa</sub> (skin surface area - adult) cm <sup>2</sup>	20900
SA <sub>0-2</sub> (skin surface area - mutagenic) cm <sup>2</sup>	6378
SA <sub>2-6</sub> (skin surface area - mutagenic) cm <sup>2</sup>	6378
SA <sub>6-16</sub> (skin surface area - mutagenic) cm <sup>2</sup>	20900
SA <sub>16-30</sub> (skin surface area - mutagenic) cm <sup>2</sup>	20900
SA <sub>0-2</sub> (mutagenic skin surface area) cm <sup>2</sup>	6378
SA <sub>2-6</sub> (mutagenic skin surface area) cm <sup>2</sup>	6378
SA <sub>6-16</sub> (mutagenic skin surface area) cm <sup>2</sup>	20900
SA <sub>16-30</sub> (mutagenic skin surface area) cm <sup>2</sup>	20900
IFW <sub>rec-adj</sub> (age-adjusted water intake rate) L/kg	6
IFWM <sub>rec-adj</sub> (mutagenic age-adjusted water intake rate) L/kg	12
DFW <sub>rec-adj</sub> (age-adjusted dermal factor) cm <sup>2</sup> -event/kg	313500
DFWM <sub>rec-adj</sub> (mutagenic age-adjusted dermal factor) cm <sup>2</sup> -event/kg	627000
IRW <sub>recwa</sub> (water intake rate - adult) L/hr	0.05
IRW <sub>recwc</sub> (water intake rate - child) L/hr	0.05
IRW <sub>0-2</sub> (mutagenic water intake rate) L/hr	0.05
IRW <sub>2-6</sub> (mutagenic water intake rate) L/hr	0.05
IRW <sub>6-16</sub> (mutagenic water intake rate) L/hr	0.05

IRW <sub>16-30</sub> (mutagenic water intake rate) L/hr	0.05
I <sub>sc</sub> (apparent thickness of stratum corneum) cm	0.001

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**Site-specific**  
**Recreator Screening Levels (RSL) for Surface Water**  
ca=Cancer, nc=Noncancer, ca\* (Where nc SL < 100 x ca SL),  
ca\*\* (Where nc SL < 10 x ca SL), max=SL exceeds ceiling limit (see User's Guide), sat=SL exceeds csat,  
Smax=Soil SL exceeds ceiling limit and has been substituted with the max value (see User's Guide),  
Ssat=Soil inhalation SL exceeds csat and has been substituted with the csat

Chemical	CAS Number	Mutagen?	VOC?	Chemical Type	Ingestion SF (mg/kg-day) <sup>-1</sup>	SFO Ref	Subchronic RfD (mg/kg-day)	Subchronic RfD Ref	Subchronic RfC (mg/m³)
Antimony (metallic)	7440-36-0	No	No	Inorganics	-		4.00E-04	P	-
Arsenic, Inorganic	7440-38-2	No	No	Inorganics	1.50E+00	I	3.00E-04	I	1.50E-05
Barium	7440-39-3	No	No	Inorganics	-		2.00E-01	A	5.00E-03
Beryllium and compounds	7440-41-7	No	No	Inorganics	-		5.00E-03	H	2.00E-05
Cadmium (Water)	7440-43-9	No	No	Inorganics	-		5.00E-04	I	1.00E-05
Calcium	7440-70-2	No	No	Inorganics	-		-		-
Chromium, Total	7440-47-3	No	No	Inorganics	-		-		-
Cobalt	7440-48-4	No	No	Inorganics	-		3.00E-03	P	2.00E-05
Copper	7440-50-8	No	No	Inorganics	-		1.00E-02	A	-
Iron	7439-89-6	No	No	Inorganics	-		7.00E-01	P	-
Lead and Compounds	7439-92-1	No	No	Inorganics	-		-		-
Magnesium	7439-95-4	No	No	Inorganics	-		-		-
Manganese (Non-diet)	7439-96-5	No	No	Inorganics	-		2.40E-02	S	5.00E-05
Mercury (elemental)	7439-97-6	No	Yes	Inorganics	-		-		3.00E-04
Molybdenum	7439-98-7	No	No	Inorganics	-		5.00E-03	H	-
Nickel Soluble Salts	7440-02-0	No	No	Inorganics	-		2.00E-02	H	2.00E-04
Potassium	7440-09-7	No	No	Inorganics	-		-		-
Selenium	7782-49-2	No	No	Inorganics	-		5.00E-03	H	2.00E-02
Silver	7440-22-4	No	No	Inorganics	-		5.00E-03	H	-
Sodium	7440-23-5	No	No	Inorganics	-		-		-

Thallium (Soluble Salts)	7440-28-0	No	No	Inorganics	-	4.00E-05	S	-
Vanadium and Compounds	7440-62-2	No	No	Inorganics	-	1.00E-02	A	1.00E-04
Zinc and Compounds	7440-66-6	No	No	Inorganics	-	3.00E-01	A	-

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	1	0.001	204.38	1	Yes	-	-	0.0009314	-
A	0.026	0.001	50.94	1	Yes	-	-	0.0060542	-
	1	0.0006	65.38	1	Yes	-	-	6.9856459	-

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Dermal SL TR=1.0E-6 (µg/L)	Carcinogenic SL TR=1.0E-6 (µg/L)	Ingestion SL (Child) HQ=1 (µg/L)	Dermal SL (Child) HQ=1 (µg/L)	Noncarcinogenic SL (Child) HQ=1 µ(g/L)	Ingestion SL (Adult) HQ=1 (µg/L)	Dermal SL (Adult) HQ=1 (µg/L)
-	-	-	-	-	4.87E+02	1.75E+02
8.83E+00	2.15E+00	-	-	-	3.65E+02	8.73E+02
-	-	-	-	-	2.43E+05	4.07E+04
-	-	-	-	-	6.08E+03	1.02E+02
-	-	-	-	-	6.08E+02	7.28E+01
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	3.65E+03	2.18E+04
-	-	-	-	-	1.22E+04	2.91E+04
-	-	-	-	-	8.52E+05	2.04E+06
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	2.92E+04	2.79E+03
-	-	-	-	-	-	-
-	-	-	-	-	6.08E+03	1.46E+04
-	-	-	-	-	2.43E+04	1.16E+04
-	-	-	-	-	-	-
-	-	-	-	-	6.08E+03	1.46E+04
-	-	-	-	-	6.08E+03	9.70E+02
-	-	-	-	-	-	-



-	-	-	-	-	4.87E+01	1.16E+02
-	-	-	-	-	1.22E+04	7.57E+02
-	-	-	-	-	3.65E+05	1.46E+06

Noncarcinogenic SL (Adult) HQ=1 (µg/L)	Screening Level (µg/L)
1.29E+02	1.29E+02 nc
2.57E+02	2.15E+00 ca
3.49E+04	3.49E+04 nc
1.00E+02	1.00E+02 nc
6.50E+01	6.50E+01 nc
-	-
-	-
3.13E+03	3.13E+03 nc
8.58E+03	8.58E+03 nc
6.01E+05	6.01E+05 nc
-	-
-	-
2.55E+03	2.55E+03 nc
-	-
4.29E+03	4.29E+03 nc
7.87E+03	7.87E+03 nc
-	-
4.29E+03	4.29E+03 nc
8.37E+02	8.37E+02 nc
-	-

3.43E+01	3.43E+01	nc
7.12E+02	7.12E+02	nc
2.92E+05	2.92E+05	nc